

# Central Basin and West Basin Municipal Water Districts Water Use Efficiency Program Proposal Solicitation, January 2, 2001



#### A. COVER SHEET

- 1. Specify: Urban Project Joint Application
- 2. Proposal title: High-Efficiency Clothes Washer Rebate Program
- 3. Principal applicant organization or affiliation: Central Basin Municipal Water District and West Basin Municipal Water District
- 4. Contact name, title: David Hill, Senior Project Manager, Water Resource Policy & Planning
- 5. Mailing address: 17140 S. Avalon Blvd., Suite 210, Carson, CA 90746-1296
- 6. Telephone: 310-660-6209
- 7. Fax: 310-516-1327
- 8. E-mail: davehill@westcentralbasin.com
- 9. Funds requested dollar amount: \$100,000
- 10. Applicant cost share funds pledged dollar amount: \$70,000
- 11. Duration (month/year to month/year): June 2001 to June 2004
- 12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted:

Assembly – CBMWD 46, 50, 52, 54, 56, 58, 60 WBMWD 41, 42, 47, 52, 54, 55 Senate – CBMWD 24, 25, 27, 29, 30 WBMWD 23, 25, 26, 27, 28 Congressional - CBMWD 33, 34, 37, 38, 39 WBMWD 24, 29, 32, 36, 37

- 13. Location and geographic boundaries of the project: Southeast and Southwest Los Angeles County. Please refer to Attachments A and B, maps of Districts.
- 14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
  - the truthfulness of all representations in the proposal;
  - the individual signing the form is authorized to submit the application on behalf of the applicant;
  - the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

(printed name of applicant)	(date)
(signature of applicant)	

#### B. SCOPE OF WORK

## **Relevance and Importance**

#### Project Abstract

Central Basin Municipal Water District (Central Basin) and West Basin Municipal Water District (West Basin) propose the implementation of a High-Efficiency Clothes Washer (HECW) Rebate Program offered to all water customers in their service area. The Districts would retain a contractor to administer the Rebate Program, including marketing efforts, a toll-free information number, and processing rebates. A partnership between Central Basin and West Basin, the local water retail agencies, and the contractor would promote the program. A funding partnership has been established between Central Basin and West Basin and the Metropolitan Water District of Southern California (MWD). The Program objectives are to distribute 1,000 HECW rebates throughout the service area, obtain water saving of over 32 acre-feet per year, reduce demand on imported water into the region, and help meet the goals of local, regional and statewide water plans.

#### Critical Water Issues

Central Basin and West Basin are two distinct water districts in southeast and southwest Los Angeles County. The two District's purpose is to buy water from MWD and wholesale it to the 41 local retail agencies within their service areas. This water is obtained from the Bay-Delta through the State Water Project and from Colorado River water. In addition, the District actively promotes and funds aggressive water conservation and water recycling programs. Collectively, the two Districts have reduced purchases of imported water with over 20,000 acre-feet per year of recycled water.

In 1991, Central Basin and West Basin signed the statewide Memorandum of Understanding (MOU) regarding Urban Water Best Management Practices (BMPs). Using the MOU as the cornerstone of our conservation efforts, the Districts have, through various incentive programs, replaced over 80,000 water-guzzling toilets with ultra-low flush models in the past seven years resulting in water savings of over 3,000 acre feet per year.

Over the years, the list of 16 BMPs has been reviewed and updated by the California Urban Water Conservation Council, most recently in 1997, resulting in 14 BMPs. One of the newest BMPs affects the replacement of existing clothes washers with HECWs. HECWs represent a significant and yet untapped source of water savings throughout the state. Water saving estimates conclude that a single-family home with 4 people and a HECW will save 28.7 gallons per day<sup>1</sup>. Multiplying these savings by the millions of existing washers produces dramatic water savings statewide. Additional financial and resource management benefits for this program result through energy, wastewater, and natural gas savings as well.

Under the MOU, water agencies are not required to implement incentive programs for HECWs unless the local energy utility is already involved in an existing incentive program. The energy utility covering the entire Central Basin and West Basin service area is Southern California Edison

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 $<sup>^{\</sup>rm 1}$  "BMP Costs and Savings Study," California Urban Water Conservation Council, July 2000.

(Edison). Given the current climate of energy utilities in the state, it is unlikely Edison will pursue any new energy conservation or demand-side management (DSM) programs. Therefore, the proposed rebate program is critical to customers within the Central Basin and West Basin service areas, providing a combined benefit of water savings, energy savings, wastewater treatment savings and natural gas savings.

In addition to the local and regional benefits identified, the proposed program would help meet the overall CALFED goal to insure California's water supplies are used efficiently and achieve multiple benefits. CALFED objectives of ecosystem quality, water supply, water quality, and levee system integrity would indirectly benefit from the efficient use of water in the Southern California region.

The partners in this proposed rebate program as identified above strongly support the program in the region, recognizing the multiple benefits that would result. The proposed program supports goals of the Regional Urban Water Management Plan (UWMP), the local agencies' UWMPs, water use efficiency plans, the Water Replenishment District's groundwater management and development plans, conjunctive use plans, water master plans, and capital improvement plans. Each of these plans describe the region as highly vulnerable to drought, water demands need to be managed and reduced where possible, best management practices should be put into place where appropriate and cost effective, and capital improvement costs reduced or deferred where water demand and treatment is reduced.

## Project Scope and Objectives

Central Basin and West Basin propose the implementation of a High-Efficiency Clothes Washer (HECW) Rebate Program offered to all water customers in their service area. The Districts would retain a contractor to administer the Rebate Program, including marketing efforts, a toll-free information number, and processing rebates. Marketing efforts would encourage the replacement of existing washing machines with HECWs.

The desired program will provide single-family residents of Central Basin and West Basin with a \$125 rebate per qualifying HECW with a total program budget of \$170,000 over a not to exceed a three-year period. The main Program objective is to replace 1,000 existing clothes washers with high-efficiency models throughout the Districts service area. Added objectives include obtaining water savings of over 32 acre-feet per year, reduced demand on imported water into the region, reduced energy demand, and help meet the goals of local, regional and statewide water plans.

A partnership to promote the program is supported between Central Basin and West Basin, the local water retail agencies, and the contractor. A funding partnership for program cost sharing has been established between Central Basin and West Basin and MWD.

## Technical/Scientific Merit, Feasibility, Monitoring and Assessment

#### Methods, Procedures and Facilities

Central Basin and West Basin will retain a contractor through a request for proposal (RFP) process. It is estimated that the RFP process from issuance of the RFP to contractor selection will last about

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60 days. Because of the necessity of program implementation by August 15, 2001, the contractor will be required to have experience in clothes washer or other type of homeowner appliance rebate program. Preferably, the contractor will simply use an existing model rebate tracking system. I

The contractor will be responsible for aggressively marketing the program, including to local retail outlets where qualifying HECWs are sold. This will include a program theme, brochures, toll-free phone numbers, announcements, etc. Since the program is a simple rebate program, a central office to answer questions from residents, process applications, and issue rebate checks is all that will be required. The benefits of retaining a contractor who is already performing this function for another agency becomes clear through reduced administrative costs, program experience, and the ability to being the program immediately.

The contractor will be responsible to maintain and promote a list of qualifying HECWs through the program marketing efforts. The US Environmental Protection Agency (EPA) and the Consortium for Energy Efficiency (CEE), a national, non-profit public benefits corporation, both maintain a list of qualifying HECWs. Both agencies have Web sites that identify qualifying HECWs. In addition, EPA offers an on-line calculator to estimate an individual resident's energy savings with an HECW. This and other sources of credible information will be used to promote and foster participation in the rebate program.

#### Schedule

Attachment C shows the project schedule, including tasks, proposed due dates and quarterly expenditure projections.

## Monitoring and Assessment

The contractor will conduct program monitoring and assessment. Activities will include tracking the number of rebates on a quarterly and annual basis, including where the customer learned of the program, type and location of the household where the HECW was installed, and the number of persons in that household. This information will be obtained through a survey as part of the rebate application and will be essential to evaluate the results of the program. Quarterly and annual reports will be developed, demonstrating program success by number of participants, total water savings, total cost savings, and a comparative analysis to expected results.

Program data and information will be acquired, organized and tracked by the contractor in an established format. Central Basin and West Basin will have access to program information at all times. The contractor will be required to submit fiscal and programmatic reports to the Districts on a quarterly and annual basis. This information will be utilized to develop quarterly and annual reports to CALFED and the DWR on program results.

## C. OUTREACH, COMMUNITY INVOLVEMENT AND INFORMATION TRANSFER

## Outreach Efforts

Central Basin and West Basin Municipal Water Districts service areas include over 2.3 million residents, with 21 cities and several unincorporated portions of Los Angeles County, through 41

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local retail agencies. With such a large service area, Central Basin and West Basin are actively involved in outreach with the retail water agencies, the Metropolitan Water District of Southern California, and other public and private entities.

In 1997, Central Basin and West Basin implemented the Public Information Committee (PIC) to coordinate effective public information programs and foster positive interagency relations throughout their service area. The success of the District's outreach is demonstrated in its school educational program and toilet rebate program. Using the PIC, the Districts will be able to implement an effective outreach program through the retail water agencies. Outreach efforts for the proposed HECW Rebate Program will be led by the administrative contractor through program promotion and marketing strategies, including local retail outlets where HECWs are sold. This will include point-of-sale brochures, a toll free phone number, and announcements available to the community to learn more about the program. Other water use efficiency programs, such as ULFT programs, have demonstrated active participation by numerous retailers with point-of-sale information resulting in increased community participation in the programs.

Additionally, local retail water agencies will actively participate in outreach efforts, including the use of bill notices and stuffers, program information at water agency counters, newsletters, press releases and media alerts, participation in community events, speaker's bureau, and inclusion in the school education program. Logically, residents can not and will not participate in a rebate program if they do not know about it. Therefore, rebate programs are highly dependent upon a good marketing strategy to let residents know about the potential benefits.

Central Basin and West Basin understand that the success of this program depends on the positive working partnership with the community and its retailers. The Districts service area incorporates wide and diverse economic and ethnic communities. Additionally, the service area incorporates a mix of water uses between groundwater and surface water. This is why Central Basin and West Basin will promote the HECW rebate program in cooperation with its retailers to all communities through the outreach efforts listed above and local events the Districts sponsor, such as the annual "Water Harvest Festival" and "May is Water Awareness Month" events.

## Training, Employment and Capacity Building

The HECW rebate program is a water and energy efficiency program. Training and employment within the community for of such an administrative rebate program is limited. However, Central Basin and West Basin will seek the services of a local contractor through a request for proposal (RFP) to implement the day-to-day administrative responsibilities. Within the RFP, Central Basin and West Basin will require the contractor to seek any necessary employment from within the Central Basin and West Basin service areas. Therefore, capacity building in the local community has potential, while heightened awareness and participation in the program will result in benefits to the local community.

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## Dissemination of Information on Project Results

Central Basin and West Basin will issue both quarterly and annual project reports in the form of an Executive Summary. This Executive Summary will be submitted to CALFED and the Department of Water Resources on the results of the program. The Executive Summary would identify the status of the program budget, number of rebates issued, the amount of water and energy saved under the program, and the overall progress of the program.

Central Basin and West Basin will also disseminate project information to the community through press releases, newsletters, and local agency bill inserts. Project information will include similar information as included in the annual report to CALFED and the DWR, highlighting the benefits to the local service area.

## D. QUALIFICATIONS OF APPLICANTS, COOPERATORS, AND ESTABLISHMENT OF PARTNERSHIPS

#### Project Manager

Mr. David Hill, Senior Project Manager, Water Resource Policy & Planning, of the Central Basin and West Basin Municipal Water Districts, will be the Project Manager for the proposed High-Efficiency Clothes Washer Rebate Program. His resume is included as Attachment D.

## External Cooperators

Central Basin and West Basin will retain the services of an experienced contractor, through a request for proposal (RFP) process, to operate the day-to-day administrative responsibilities. Responsibilities will include marketing the program to local retail outlets, establishing a toll free phone line, developing a program theme, providing brochures to the retailers, and processing the rebates. The contractor will work closing with Central Basin and West Basin staff to ensure effectiveness and quality of the program.

#### **Partnerships**

Central Basin and West Basin, MWD and the local retail water agencies have established a partnership for funding and implementing the proposed HECW Rebate Program. MWD will participate in cost sharing of the program with Central Basin and West Basin, and will receive benefits through a reduction of treatment and distribution costs. MWD has determined that the cost to deliver water to Southern California over the Tehachapi Mountains is \$54 per acre-foot. MWD has calculated this cost into a HECW rebate investment of \$35 per HECW.

Local water retailers will actively participate in the community outreach, marketing, and implementation of the program. Retailers will benefit from reduced import water demands, overall lower cost of water, contribute to stabilization of water rates, and actively implement BMP 6 from the Memorandum of Understanding Regarding Urban Water Conservation in California.

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#### **E. COSTS AND BENEFITS**

## **Proposed Program Budget Summary**

Budget Item	Total Proposed Program Cost	DWR Cost Share	Central Basin and West Basin Cost Share	MWD Cost Share
Salaries and Wages	0	0	0	0
Fringe Benefits	0	0	0	0
Supplies	0	0	0	0
Equipment	0	0	0	0
Services or Consultants	\$170,000	\$100,000	\$35,000	\$35,000
Travel	0	0	0	0
Other Direct Costs	0	0	0	0
<b>Total Estimated Costs</b>	\$170,000	\$100,000	\$35,000	\$35,000

## **Budget Justification**

Central Basin and West Basin propose to retain a contractor to administer the rebate program, selected through a request for proposal (RFP) process. The Districts will select the most qualified firm with direct experience in such a rebate program. The selected contractor will conduct all aspects of the rebate program. The contractor will be paid \$170 per rebate processed; \$125 rebate to the customer and \$45 per rebate for contractor administrative costs. Program cost sharing is proposed to include Central Basin and West Basin and MWD each at 21% of total program costs and the DWR at 58% of total program costs.

Contractor administrative costs will total \$45,000 upon processing of all 1,000 rebates. Administrative costs include \$20,000 for administration and \$25,000 for marketing. Marketing will further be allocated at \$10,000 for general advertising and \$15,000 for direct marketing.

#### Benefit Summary and Breakdown

Central Basin and West Basin's goal is to replace 1,000 existing clothes washers with high-efficiency clothes washers in its service area. According to the California Urban Water Conservation Council, each high efficiency machines will save approximately 28.7 gallons a day, which will reduce Central Basin and West Basin water demand by 10,476 gallons per year per HECW. Ultimately, a total of 32.15 acre-feet per year will be saved upon installation of all 1,000 HECWs. This also benefits energy costs, a reduction in water treatment and distribution, and a reduction in wastewater treatment.

Program results are expected to benefit the customers through a reduced cost of water and stable rates, and water retailer's cost of purchasing imported water. Central Basin and West Basin will benefit from reduced purchases from MWD. Such saving are needed in during times of rising energy costs, energy shortages, and potential water shortages from the Bay-Delta through the State Water Project. From both a water use efficiency and demand management position and the current energy crisis, a HECW Rebate Program is timely and appropriate.

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A reduction in MWD's water demand will ease the pressure of receiving more water from the Bay-Delta and aid in reducing demands from the those supplies during dry years. The HECW program will indirectly benefit CALFED goals and objectives, since it eases Southern California's reliability on the Bay-Delta water supply now and into the future.

In addition to the quantifiable benefits in implementing a HECW rebate program, there are qualitative benefits that will result from the proposed program. Building a water use efficiency partnership within the region will establish an effective relationship between all water agencies in the community. Future water use efficiency programs will be effectively implemented through these relationships and partnerships. The proposed program also requires community participation and provides a method for citizens to use water efficiently. Each cooperative effort established will strengthen the environmental conscience and give support for future water use efficiency projects.

## Assessment of Costs and Benefits

The table below shows the estimated water and cost savings based on the following assumptions:

- 1. 1,000 rebates issued by end of year 3; 250 in year 1, 500 in year 2, and 250 in year 3
- 2. 10-year useful life for a HECW
- 3. HECW saves 28.7 gallons per day (10,475.5 gallons per year) for a household of 4
- 4. Water costs at MWD Treated Full Service rate \$431/AF
- 5. Energy and natural gas savings determined as type(s) of HECW purchased are identified
- 6. State energy savings for State Water Project at \$3,000/AF
- 7. Cost savings are ongoing
- 8. All cost savings are expressed in year 2000 dollars using a 6% discount rate

## **Program Costs and Benefits**

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of									
Rebates	250	750	1,000	0	0	0	0	0	0
Water Savings									
(AF)	8.04	24.11	32.14	32.14	32.14	32.14	32.14	32.14	32.14
Wholesale Water									
Cost Savings	\$3,267	\$9,247	\$11,632	\$10,974	\$10,353	\$9,767	\$9,214	\$8,692	\$8,200
Additional Energy									
and Natural Gas									
Savings	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
State Energy									
Savings	\$22,743	\$64,367	\$80,963	\$76,382	\$72,062	\$67,983	\$64,136	\$60,500	\$57,077
Accumulated									
Water and Energy									
Savings	\$26,010	\$99,624	\$192,219	\$279,575	\$361,990	\$439,740	\$513,090	\$582,282	\$647,559
Program Funding									
Investment	\$42,500	\$85,000	\$42,500	0	0	0	0	0	0
Payback	(\$16,490)	(\$27,876)	\$22,219						

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Energy and natural gas savings are accumulated through the program and are ongoing. As information is obtained on what type of HECW is purchased and installed through the program, energy and natural gas saving models will be used to calculate total program energy savings. This information will be included in the final report, and in annual reports as information is available.

Additional energy savings are received from reducing water pumped in the State Water Project over the Tehachapi Mountains. Analysis has shown that it costs approximately \$3,000 per acre-foot of water to pump water over the Tehachapi Mountains. Therefore, for every AF of water saved using HECWs, \$3,000 in energy costs is saved by the State Water Project.

Program cost estimates show that payback on investment could occur as early as in the third year of the program .

Non-quantified costs and benefits may be more difficult to summarize, although qualitative benefits can be asserted for each project participant, partner and beneficiary. Today's water use efficiency partnerships within the region will establish an effective relationship between all water agencies in the community, providing for effective implementation of future programs; investing now for the future. Community participation strengthens the environmental conscience and gives support for future water use efficiency projects.

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## DAVID A. HILL PROJECT MANAGER

CENTRAL BASIN MUNICIPAL WATER DISTRICT WEST BASIN MUNICIPAL WATER DISTRICT 17140 S. AVALON BLVD., SUITE 210 CARSON, CA 90746-1296 (310) 660-6209 (310) 516-1327 FAX davehill@westcentralbasin.com

**10 Years** Senior Project Manager - West Basin and Central Basin Municipal Water Districts, Carson, CA

West Basin and Central Basin are two quasi-government agencies that provide wholesale water to 2.3 million residents in 41 cities in the South Bay and southeast Los Angeles County. The Districts are nationally recognized as innovative leaders in water resource management.

#### **Major Projects:**

- CALFED Liaison Lead agency representative on all CALFED (and Colorado River) issues.
- Ultra-Low Flush (ULF) Toilet Rebate Program A \$3.4 million incentive program that operated for four years and replaced over 37,000 toilets in West Basin and Central Basin.
- ULF Toilet Distribution Program A locally funded \$1.2 million annual program created to provide residents with free ULF toilets to reduce municipal demand and retail water bills.
- "Circuit-Rider" Local Government Landscape Program A \$60,000 annual program to provide technical assistance and education to planners in the area of demand reduction in landscaping and to bring municipalities in compliance with state law.
- Legislative Tracking and Analyzation Track and analyze current legislation, submit policy
  position papers, board memos, weekly board updates, and engage regional and statewide
  organizations and associations.
- Recycled Water Marketing Part of a marketing team responsible for the connection of public agency lands and private businesses to the West Basin Recycled Water Program and the Central Basin Recycled Water Program.

#### **Publications:**

- Guest Commentary, Low Flow Toilets Check the Use of Water, Whittier Daily News, August 1, 1997
- Author, Water Districts and Urban Planners: Developing Partnerships for Water Conservation In Landscaping for the Urban Environment, Proceedings of Conservation '96, 1996
- Co-author, Water Plan '95 Urban Water Management Plan, 1995
- Author, Recycled Water Handbook: An Introduction to and Resource Guide to Using Recycled Water, 1995.
- Author, *Injury and Illness Prevention Plan*, 1992.
- Co-author, Urban Water Shortage Contingency Plan, 1992.

David A. Hill Senior Project Manager

## **Video Publications:**

- "Drought-Proof 2000," 1996 Co-authored a script for a West Basin and Central Basin promotional video
- "Making Recycled Water Work," 1995 Co-authored the script for a training video for utility personnel on the requirements of using recycled water

## **Affiliations:**

- American Water Works Association
- American Red Cross Los Angeles Chapter

#### **Education:**

Master of Science Degree - Environmental Policy and Planning California State University, Fullerton, 1995 Bachelor of Arts Degree - Political Science California State University, Fullerton, 1985